

Bat acoustic monitoring: volunteer details and duties

2020

Why:

Bat populations across much of eastern and Midwestern North America are declining due to the disease White Nose Syndrome (WNS). Identification of areas in Iowa where bats are most abundant is critically needed to understand the potential ramifications of WNS to Iowa. Acoustic monitoring surveys that rely on recording bat echolocation calls are an efficient way to monitor bat populations to identify areas of high bat activity in Iowa.

Where:

We will conduct acoustic monitoring for bats along 19 road transects across Iowa. We will also be placing stationary bat acoustic units near the transect locations. The transects and stationary sites exist in 9 counties, listed below. The counties in **bold and all uppercase are where volunteers are needed in 2020.**

- Boone
- Clayton
- Dubuque
- **HAMILTON**
- **JACKSON**
- Lucas
- **MARSHALL**
- **SIOUX**
- Story
- Warren

When:

Each mobile transect is surveyed at night twice during a two week period in the month of July. The two runs of the survey should be no more than 7 days apart within this two week period. Two stationary sites have detectors placed during the same period the mobile transect is run.

How:

Teams of two are necessary. Volunteers will mount a microphone to the roof of the vehicle and attach it to a bat detector in the vehicle. One person will drive while the other person will monitor the equipment and provide directions to the driver. Volunteers will drive a transect beginning 30 minutes after sunset. Drivers will proceed at 20 mph and follow specific turn-by-turn instructions to complete the transect which will be approximately 30 miles in length. Driving the route one time will take 1.5 hours plus drive time to and from the start and finish of the route.

At stationary sites, equipment is placed at a specified locations and then left for a period of days before being retrieved.

Requirements:

- Flexible schedule (transects cannot be conducted during rainy, foggy, or windy conditions).
- Personal vehicle to drive the transect and get to the stationary site.
- Willingness to conduct a transect twice within 7 days during a two week assigned period in July.
- Teams of at least 2 are needed to conduct a transect.
- Comfortable driving slowly (20 mph) on country roads (gravel) after dark (road transect).
- Ability to accurately record data on datasheets and enter data into an online form.
- Willingness to coordinate with others to pick-up and exchange equipment that must be shared between transects.
- Must be able to receive participate in a virtual training sometime in late June.
- Comfortable with technology and willingness to learn how to use the recording equipment.
- For stationary sites, the ability to hike some distance in a forested landscape, perhaps on private land.

COVID-19 NOTES: The coordinators are still developing methods for how we will deploy equipment, training and orchestrate equipment exchanges without putting volunteers at risk of infection. We will be developing strict protocols in order to keep people safe but the risk will likely not be 0. Also, please note that you will need to operate as a team to run the driving transects so be sure to have a partner you feel comfortable being with in a car for 2+ hours.